DERWENT-ACC-NO: 2000-629618

DERWENT-WEEK: 200942

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TITLE: Polyamide composition useful in injection

welding

material, comprises a polyamide resin and a

polyhydric

alcohol

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PATENT-ASSIGNEE: UBE IND LTD[UBEI]

PRIORITY-DATA: 2000JP-029871 (February 8, 2000) , 1999JP-089812

(March 30,

1999)

PATENT-FAMILY:

 PUB-NO
 PUB-DATE
 LANGUAGE

 EP 1041109 A2
 October 4, 2000
 EN

 JP 2000345031 A
 December 12, 2000
 JA

 JP 2008274305 A
 November 13, 2008
 JA

 JP 4284808 B2
 June 24, 2009
 JA

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU

LV MC MK

NL PT RO SE SI

APPLICATION-DATA:

PUB-NO APPL-DESCRIPTOR APPL-NO

APPL-DATE

EP 1041109A2 N/A 2000EP-106719

March 29, 2000

JP2000345031A N/A 2000JP-029871

February 8, 2000

JP 4284808B2 N/A 2000JP-029871

February 8, 2000

JP2008274305A Previous Publ 2008JP-213477

August 22, 2008

INT-CL-CURRENT:

TYPE IPC DATE
CIPP C08L77/00 20060101
CIPP C08L77/00 20060101

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CIPS B29C45/14 20060101
CIPS B29C65/70 20060101
CIPS C08K3/00 20060101
CIPS C08K5/053 20060101
CIPS C08K5/053 20060101
CIPS C08K5/098 20060101
CIPS C08K7/04 20060101
CIPS C08K7/04 20060101
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ABSTRACTED-PUB-NO: EP 1041109 A2

BASIC-ABSTRACT:

NOVELTY - A polyamide composition comprises (parts by weight (pbw)), a polyamide resin (1) (100), and a polyhydric alcohol (2) (0.005 - 5) having a melting point of 150 - 280 degreesC.

USE - In injection welding material (claimed) by die slide injection (DSI) or

die rotatory injection (DRI) technique e.g. automotive parts manufactured by

DSI or DRI, house-hold electric appliance and connectors for electronic

apparatuses, mechanism elements such as intake manifold, air duct, resonator

chamber, oil strainer, power steering tank, brake fluid subtank, relay box,

ecofiller, locker cover and sensor and modular components.

ADVANTAGE - The composition does not require a pre-treatment step for addition

of a fluidity improver, prevents scattering of the fluidity improver and has

both good fluidity and mechanical strength without impairing mechanical

properties, heat resistance, dimensional accuracy, resistance against an oil

such as gasoline or engine oil, and chemical resistance inherent to a polyamide

resin. The improver adheres to the external surfaces of the pellets, and

without causing clogging of the filter of the hopper drier of the injection

molding machine.

EQUIVALENT-ABSTRACTS:

POLYMERS

Preferred Components: (1) has a melting point of 160 - 320 degreesC. (2) is

pentaerythritol and/or dipentaerythritol.

Preferred Composition: (2) is in an amount of (0.05 - 3 pbw) based on 100 pbw

of (1). The composition further comprises a fibrous filler (preferably glass

fiber) and a color pigment. The fibrous filler is in an amount of not more

than 200 (preferably not more than 100, especially 5 - 50)pbw based on 100 pbw $^{\circ}$

of (1).

A target polyamide composition was prepared by kneading (parts by weight (pbw))

UBE Nylon 6 1015B (RTM: polyamide 6 resin) (100), black pigment master (3),

pentaerythritol (100) with a melting point of 260degreesC as a polyhydric

alcohol, and glass fibers (45). The resulting composition showed a fluidity

(mm) for 50 MPa (75) and for 100 MPa (135) and injection welding strength (kg)

(390). The polyamide resin thus obtained permitted continuous molding without

causing clogging of the filter of the hopper drier of the injection molding machine.

TITLE-TERMS: POLYAMIDE COMPOSITION USEFUL INJECTION WELD MATERIAL COMPRISE

RESIN ALCOHOL

DERWENT-CLASS: A23

CPI-CODES: A05-F01E; A08-M06; A11-B12;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; P0635*R F70 D01; S9999 S1434;

Polymer Index [1.2]

018; P0646 P1934 P0635 F70 D01 D11 D10 D50 D86; S9999 S1434; Polymer Index [1.3]

018; ND01; ND04; K9892; K9449; Q9999 Q7874; B9999 B5312 B5298

B5276; B9999 B4171 B4091 B3838 B3747; B9999 B3554*R; Q9999 Q9234

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Q9212; Q9999 Q9289 Q9212; Q9999 Q7330*R; Q9999 Q7681*R; B9999 B4682

B4568; B9999 B4671 B4568; B9999 B4580 B4568; N9999 N6484*R
N6440;

B9999 B3758*R B3747;
Polymer Index [1.4]

018; G2891 D00 Si 4A; A999 A237; A999 A419; S9999 S1070*R;
Polymer Index [1.5]

018; D01 F28 F26 F29 D11 D10 D50 D90 F34; G1070 G0997 D01 D11
D10 D50

D85 F29 F26 R00972 6660; A999 A691*R; A999 A771;
Polymer Index [1.6]

018; A999 A102 A077;
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SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: 2000-188790